



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/619,055

07/14/2003

Yann Echelard

GTC-208

6885

31904

7590

12/02/2005

GTC BIOTHERAPEUTICS, INC.

175 CROSSING BOULEVARD, SUITE 410

FRAMINGHAM, MA 01702

EXAMINER

NOBLE, MARCIA STEPHENS

ART UNIT

PAPER NUMBER

1632

DATE MAILED: 12/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/619,055		ECHELARD ET AL.	
	<b>Examiner</b>		<b>Art Unit</b>	
	Marcia S. Noble		1632	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-25 are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

Art Unit: 1632

### DETAILED ACTION

1. Claims 1-25 are pending.

#### ***Election/Restrictions***

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-11, 14, 17, and 22-24, drawn to a method of producing homozygous transgenic animals using an embryo donor cell, classified in class 800, subclass 24.
- II. Claims 14-19, drawn to a method of producing homozygous transgenic animals using non-quiescent somatic donor cells, classified in class 800, subclass 21.
- III. Claims 12, 13, and 19, drawn to resultant transgenic offspring, classified in class 800, subclass 8.
- IV. Claims 20-24, drawn to a method of developing a functional organ transplant using homozygous transgenic cell lines, classified in class 800, subclass 3.
- V. Claim 25, drawn to resultant milk derived from the resultant homozygous transgenic offspring, classified in class 800, subclass 7.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I, II, and IV are patentably distinct inventions. Inventions are distinct if it can be shown that they are not disclosed as capable of use together and they have

Art Unit: 1632

different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01).

In the instant case, group I and II are distinct from each other because the methods require distinct starting materials. Group I uses embryo donor cells and group II use non-quiescent somatic cells. Embryonic donor cell are naturally totipotent and undifferentiated and therefore can be transferred into another embryo directly whereas somatic cells must under reprogramming methods to return it to the undifferentiated, totipotent state first before use in nuclear transfer. Therefore group I and II are distinct because group II requires different and additional steps not required by group I. Group I and II are distinct from group IV because group IV will use the homozygous cells in a different methodology to produce a different outcome, a functional organ for transplant.

Inventions of III and V are patentable distinct. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case, III is drawn to homozygous transgenic offspring which is biologically distinct from V, drawn to milk from resultant homozygous transgenic animals. Milk have a chemical and biological distinct structure and function than transgenic offspring.

The methods of I, II, and IV and products of III and V are related as process of making and process of using the product. The use as claimed cannot be practiced with a materially different product. Since the product is not allowable, restriction is proper

Art Unit: 1632


between said method of making and method of using. The product claim will be examined along with the elected invention (MPEP § 806.05(i)).

Homozygous transgenic animals can be produced by microinjection of a transgene, followed by embryo transfer and selective breeding of transgenic offspring. Also cell from this method of producing transgenic animals can be used to produce transplantable organs.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marcia S. Noble whose telephone number is (571) 272-5545. The examiner can normally be reached on M-F 9 to 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ram Shukla can be reached on (571) 272-0735. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

  
AU 1632

Art Unit: 1632

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Marcia S. Noble

*Joe Winters*  
AU 1632